

Chesterfield County's Stormwater Drainage System

Stormwater runoff is the water from rain, melting snow or ice, which flows over the ground or pavement without soaking into the ground. The **stormwater drainage system** carries that runoff to our **county waters** - ponds, streams, lakes, reservoirs or rivers. *Anything that is washed into the storm sewer system ends up in county waters and could wind up in the Chesapeake Bay!*

What is the function of the stormwater drainage system?

The stormwater drainage system is designed to adequately convey stormwater runoff to certain locations, in order to minimize drainage problems on our roadways and on individual properties. *The storm drainage system is not designed to treat stormwater before it enters our streams.*

The **wastewater** from our kitchens and bathrooms is carried away by **sanitary sewers** and it is filtered and disinfected in wastewater treatment plants before it is discharged to our waters. Unlike

wastewater, *stormwater is not treated before it is released into our waters, except where it passes through*

best management practice facilities (BMPs), such as stormwater basins, which filter out some of the pollutants.



Elements of the stormwater drainage system

The **stormwater drainage system** is defined by Chesterfield County and the U.S. Environmental Protection Agency (EPA) as:

"...a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins,

curbs, gutters, ditches, man-made channels, or storm drains..."

In Chesterfield County, the stormwater drainage system includes the following structures:

- **Outfall pipes**
- **Driveway culverts**
- **Roadside ditches**
- **Curbs and gutters**

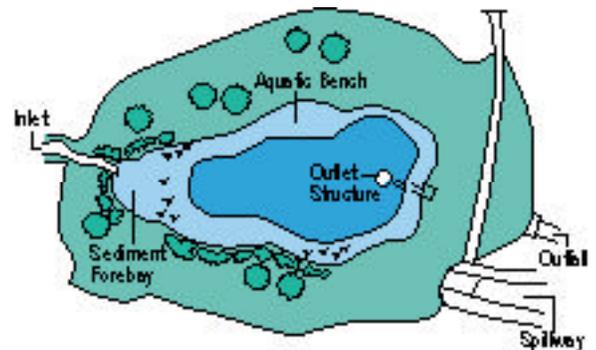


- **Manholes**
- **Drop inlets**
- **Buried pipes**

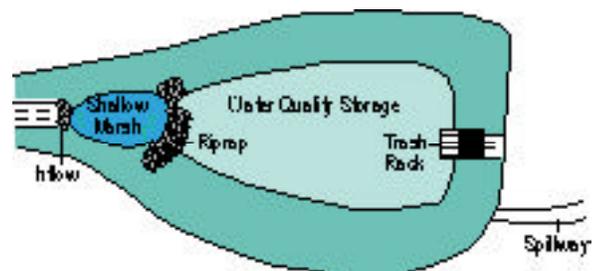


• **Man-made aboveground conveyance structures**, such as paved ditches, grass ditches, and "rip-rap" ditches (ditches with large rocks placed in them to stabilize the banks and control erosion)

• **Stormwater retention basins or "wet ponds"** (below), BMPs designed as permanent pools of water to enhance water quality along with additional capacity to store stormwater runoff



• **Stormwater detention basins or "dry ponds"** (below), designed to temporarily store incoming stormwater to reduce flooding, are typically dry or marshy between storm events



Who maintains the stormwater drainage system in Chesterfield County?



The **Virginia Department of Transportation (VDOT)** maintains nearly all (99 percent) of the roads in Chesterfield County. All bridges, roadside ditches, culverts and drop inlets that are located on roads with curbs and gutters are within the VDOT right-of-way and are therefore maintained by VDOT.



Chesterfield County maintains all underground conveyance pipes, drop inlets and ditches (paved, grass and rip-rap) that are

located in *dedicated county easements*. These are typically located between or behind private residences.

In some subdivisions, storm drainage structures that are located in dedicated open space areas are maintained by that community's homeowners' association. In such cases, VDOT still maintains the portion of the storm drainage system that is within VDOT's right-of-way.

The county ensures that stormwater basins (BMPs) are properly maintained through a formal BMP maintenance program.

Who To Call:



For general questions on the county's storm drainage system, or to report blockages or problems with man-made drainage structures located in subdivisions, please call the county's

Environmental Engineering Department at (804) 748-1035.

To report blockages or problems with roadside ditches or culverts under roads, please call **VDOT at (804) 674-2800** or **1-800-344-0037**.

Do's and Don'ts in the Stormwater Drainage System

Please DO:

- ☺ Mow grass in earthen ditches and remove the clippings
- ☺ Keep debris and dirt out of curbs and gutters
- ☺ Keep debris and other material out of drop inlets, manholes and driveway culverts
- ☺ Rake leaves and grass clippings onto the shoulder, *alongside* paved or grass ditches, when you have arranged for them to be picked up through a leaf pick-up program
- ☺ Wash cars on the lawn or at a car wash — because *soapy water that enters a storm drain can be harmful to fish and wildlife*
- ☺ Report missing man-hole covers to the **Environmental Engineering Department at (804)748-1035**
- ☺ Report dumping of pollutants into the storm sewer system by calling the **ILLICIT DISCHARGE HOTLINE at (804) 717-6161**

Please DON'T:

- ☹ Dump motor oil, antifreeze, pesticides, fertilizers, pet waste or other pollutants into roadside ditches, drop inlets or any other storm drainage structure — because *these materials will be carried to a stream or other water body*
- ☹ Put *anything* into a drop inlet
- ☹ Block slots, grates or pipes
- ☹ Rake leaves or grass clippings into any paved or grass ditches, adjacent to a residence or along the side of the road
- ☹ Fill or otherwise alter drop inlets, open ditches, pipes or any other stormwater drainage structure

This is one of a series of fact sheets about surface water quality issues in Chesterfield County. Copies are available in the Department of Environmental Engineering offices at 6806 West Krause Road. The series includes:

- *Chesterfield County's Stormwater Management Program* (August 1997)
- *Household Guide to Chesterfield County's Illicit Discharge Ordinance* (October 1997)
- *Business and Industry Guide to Chesterfield County's Illicit Discharge Ordinance* (October 1997)
- *Chesapeake Bay Resource Protection Areas and Flood Plains* (December 1997)
- *The Streams of Chesterfield County* (September 1998)
- *Homeowner's Guide to Flood Plain Management* (February 1999, revised August 1999)

These fact sheets are produced by the Water Quality Section of the Department of Environmental Engineering. Our mission is to protect, maintain and restore the chemical, physical and biological integrity of Chesterfield County's waters. This mission furthers one of the county's Strategic Goals: to maintain an extraordinary quality of life in the county by protecting and preserving our natural and historical resources. For more information, call 804-748-1035.